



PTO 083/08A (10-96)
for use through 10/31/99. OMB 0651-0031
ce: U.S. DEPARTMENT OF COMMERCE

TECH CENTER 1600/2900

MAR 08 2002

77,873

Substitute for form 1449A/PTO

(use as many sheets as necessary)


Complete if Known

Application Number	09/727,873
Filing Date	December 1, 2000
First Named Inventor	Elizabeth M. Denholm
Group Art Unit	1651
Examiner Name	M. Meller
Attorney Docket Number	IT 105

Sheet	1	of	5
-------	---	----	---

[illegible]

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ^a
		Office.*	Number ^a	Kind Code ^b (if known)				
		WO	98/46258	A2	Beth Isreal Deaconess Medical Center, Inc.	10-22-1998		
		WO	99/484778	A1	Insight Strategy & Marketing Ltd.	09-30-1999		
		WO	95/13091	A1	International Technology Management Associates, Ltd.	05-18-1995		
		WO	96/01894	A1	Ibex Technologies Research & Development, Inc.	01-25-1996		



Date Considered

1/9/06.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 If possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SENT TO:** Assistant Commissioner for Patent, Washington, DC 20231.

Please type a plus sign (+) inside this box →



Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

Complete if Known


INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Application Number	09/727,873
Filing Date	December 1, 2000
First Named Inventor	Elizabeth M. Denholm
Group Art Unit	1651
Examiner Name	M. Meller
Attorney Docket Number	IT 105

Sheet 2 of 5

OTHER ART - NON PATENT LITERATURE DOCUMENTS

Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		BENSADOUN, et al. "Proteoglycan deposition in pulmonary fibrosis," <i>Amer. J. Respir. Crit. Care Med.</i> 154:1819-1828 (1996).	✓
		DENHOLM & PHAN, "The effects of bleomycin on alveolar macrophage growth factor secretion," <i>Amer. J. Pathol.</i> 134:355-363 (1989).	✓
		DENHOLM, "Inhibition of fibroblast by Chondroitinase AC(CAC) and Chondroitinase B(CB)," <i>FASEB J</i> 12(5):A948 1998).	✓
		DENHOLM, et al., "Inhibition of human dermal fibroblast proliferation by removal of dermatan sulfate," <i>European Journal of Pharmacology</i> 400:145-153 (2000).	✓
		DONATI, et al., "Treatment of hyertrophic and keloid cicatrices with thiomucase," <i>Minerva Chirurgica</i> 30(6):326-33 AN-Medline 76196588 (1975).	✓
		FANNON & NUGENT, "Basic fibroblast growth factor binds its receptors, is internalized, and stimulates DNA synthesis in Balb/c3T3 cells in the absence of heparan sulfate," <i>J. Biol. Chem.</i> 271:17949-17956 (1996).	✓
		FORRESTER, et al., "A paradigm for restenosis based on cell biology: clues for the development of new preventive therapies," <i>J. Am. Coll. Cardiol.</i> 17:758-769 (1991).	✓
		JACKSON, et al., "Glycosaminoglycans: molecular properties, protein interactions, and role in physiological processes," <i>Physiol. Rev.</i> 71:481-530 (1991).	✓
		KELLER, et al., "Modulation of cell surface heparan sulfate structure by growth of cells in the presence of chlorate," <i>Biochem.</i> 28:8100-8107 (1989).	✓
	KJELLEN & LINDAHL, "Proteoglycans: structures and interactions," <i>Ann. Rev. Biochem.</i> 60:443-475 (1991).	✓	

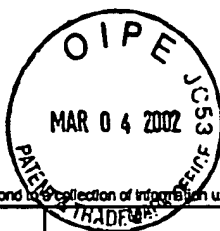
Examiner's Signature		Date Considered	1/9/06
----------------------	--	-----------------	--------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐



Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete If Known	
		Application Number	09/727,873
		Filing Date	December 1, 2000
		First Named Inventor	Elizabeth M. Denholm
		Group Art Unit	1651
		Examiner Name	M. Meller
Sheet	3	of	5
		Attorney Docket Number	IT 105

RECEIVED
 MAR 08 2002
 TECH CENTER 1600/2800

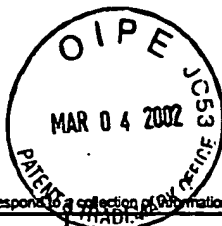
OTHER ART - NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
W		LINHARDT, et al., "Polysaccharide lyases," <i>Appl. Biochem. Biotech.</i> 12:135-175 (1986).	✓
		LINN, et al. "Isolation and characterization of two chondroitin lyases from <i>Bacteroides thetaiotaomicron</i> ," <i>J. Bacteriol.</i> 156:859-866 (1983).	✓
		LIU & CONNOLLY, "Isolation and characterization of two chondroitin lyases from <i>Bacteroides thetaiotaomicron</i> ," <i>Sem. Cutaneous Med. and Surg.</i> 17:3-11 (1998).	✓
		LYON, et al., "Hepatocyte growth factor/scatter factor binds with high affinity to dermatan sulfate," <i>J. Biol. Chem.</i> 273:271-278 (1998).	✓
		MAEDA, et al., "6B4 proteoglycan/phosphacan, an extracellular variant of receptor-like protein-tyrosine phosphatase zeta/RPTPbeta, binds pleiotrophin/heparin-binding growth-associated molecule (HB-GAM)," <i>J. Biol. Chem.</i> 271:21446-21452 (1996).	✓
		MIAO, et al., "Heparan sulfate primed on beta-D-xylosides restores binding of basic fibroblast growth factor," <i>J. Cell. Biochem.</i> 57:173-184 (1995).	✓
		MICHELACCI, et al., "Isolation and characterization of an induced chondroitinase ABC from <i>Flavobacterium heparinum</i> ," <i>Biochim. Biophys. Acta.</i> 923:291-201 (1987).	
		MILEV, et al., "The core protein of the chondroitin sulfate proteoglycan phosphacan is a high-affinity ligand of fibroblast growth factor-2 and potentiates its mitogenic activity," <i>J. Biol. Chem.</i> 273:21439-21442 (1998).	
		PENC & GALLO, "Dermatan sulfate released after injury is a potent promoter of fibroblast growth factor-2 function," <i>J. Biol. Chem.</i> 273:28116-28121 (1998).	
		PHAN & KUNKEL, "Lung cytokine production in bleomycin-induced pulmonary fibrosis," <i>Exper. Lung Res.</i> 18:29-43 (1992).	
Examiner's Signature	Date Considered		1/9/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



PTO/SB/08A (10-95)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO		Complete if Known			
		TECH CENTER 160012800			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	09/727,873		
		Filing Date	December 1, 2000		
		First Named Inventor	Elizabeth M. Denholm		
		Group Art Unit	1651		
		Examiner Name	M. Meller		
Sheet	4	of	5	Attorney Docket Number	IT 105

OTHER ART - NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
MM		RICHARDSON & HATTON, "Transient morphological and biochemical alterations of arterial proteoglycan during early wound healing," <i>Exp. Mol. Pathol.</i> 58:77-95 (1993).	
		SATO, et. al., "Submit structure of Chondroitinase ABC from <i>Proteus vulgaris</i> ," <i>Agric. Biol. Chem.</i> 50:1057-1059 (1986).	
		SCHMIDT, et al., "The antiproliferative activity of arterial heparan sulfate resides in domains enriched with 2-O-sulfated uronic acid residues," <i>J. Biol. Chem.</i> 267:19242-19247 (1992).	
		SCHWARTZ, "Regulation of chondroitin sulfate synthesis. Effect of beta-xylosides on synthesis of chondroitin sulfate proteoglycan, chondroitin sulfate chains, and core protein," <i>J. Biol. Chem.</i> 252:6316-6321 (1977).	
		SEGARINI, et al., "Binding of transforming growth factor-beta to cell surface proteins varies with cell type," <i>Molecular Endocrinol.</i> 3:261-272 (1989).	
		SUNDBERG, et al., "Development and progression of psoriasiform dermatitis and systemic lesions in the flaky skin (fsn) mouse mutant," <i>Pathobiology</i> 65:271-286 (1997).	
		TABAS, et al., "Lipoprotein lipase and sphingomyelinase synergistically enhance the association of atherogenic lipoproteins with smooth muscle cells and extracellular matrix. A possible mechanism for low density lipoprotein and lipoprotein(a) retention and macrophage foam cell formation," <i>J. Biol. Chem.</i> 268(27):20419-20432 (1993).	
		TAO, et. al., "Elevated expression of proteoglycans in proliferating vascular smooth muscle cells," <i>Atherosclerosis</i> 135:171-179 (1997).	
V		VARANI, et al., "Expression of serine proteinases and metalloproteinases in organ-cultured human skin. Altered levels in the presence of retinoic acid and possible relationship to retinoid-induced loss of epidermal cohesion," <i>Amer. J. Pathol.</i> 145:561-573 (1994).	
		VLODAVSKY, et al., "Control of cell proliferation by heparan sulfate and heparin-binding growth factors," <i>Thrombosis Haemostasis</i> 74:534-540 (1995).	

Examiner's Signature		Date Considered	1/9/06
----------------------	--	-----------------	--------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 18 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



Approved for use through 10/31/99. OMB 0551-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Application Number

Filing Date

First Named Inventor

Group Art Unit

Examiner Name

Attorney Docket Number

09/17/99

December 8, 2000

Elizabeth M. Denholm

1651

M. Meller

IT 105

OTHER ART - NON PATENT LITERATURE DOCUMENTS

Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
WJ		YAMAGATA, et al., "Purification and properties of bacterial chondroitinases and chondrosulfatases," <i>J. Biol. Chem.</i> 243:1523-1535 (1968).	
		YAYON, et al., "Cell surface, heparin-like molecules are required for binding of basic fibroblast growth factor to its high affinity receptor," <i>Cell</i> 64:841-848 (1991).	
		YEO, et al. Alterations in proteoglycan synthesis common to healing wounds and tumors," <i>Amer. J. Pathol.</i> 138:1437-1450 (1991).	
		ZHANG, et. al., "In situ hybridization analysis of rat lung alpha 1(I) and alpha 2(I) collagen gene expression in pulmonary fibrosis induced by endotracheal bleomycin injection," <i>Lab. Invest.</i> 70: 192-202 (1994).	

Examiner's Signature

Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.